

# SAFETY DATA SHEET

## SUPERIOR NO. 460

DATE REVISED: January 1, 2016

**Product Name:** Superior No. Superior 460

**Manufacturer:** Superior Flux & Mfg. Co. 6615 Parkland Blvd. Cleveland, OH 44139

**Emergency Phone Number:** 1-800-424-9300 (CHEMTREC)

**Other Information Calls:** (440) 349-3000

**To the Purchaser:** This MSDS contains important environmental, health, and toxicology information for your employees who have ordered this product. Please be sure this information is given to them. If you resell this product, a copy of the MSDS should be given to the buyer.

**H.M.I.S. INFORMATION: HEALTH = 2      FLAMMABILITY = 0      REACTIVITY = 0**

### SECTION I - IDENTIFICATION

**Common Name:** Superior 460

**Chemical Family:** : Organic acid, chloride activated flux

**CAS Number:** NA

**Chemical Name:** NA

**Formula:** See below

### SECTION II – HAZARDS IDENTIFICATION

Classification of Substance or Mixture:

**Classification (CLP):** Corrosive

**Label Elements (CLP):** Corrosive



Corrosive      Irritant

**Precautionary Phrases:** P264, P270, P280, P301+P312, P305+P351+P338, P330, P337+P313, P301+P330+P331, P304+P340, P309+P311

**Risk Phrases:** R36/37/38, R34

**Safety Phrases:** S-26, S-27, S-36/37/39, S-45, S18, S61, S62, S64

See section XVI for full text description of S and R phrases

**Other Hazards:** None if used properly

### SECTION III- COMPOSITION INFORMATION

Components	CAS Number	%	OSHA PEL	H Phrases
Ammonium Chloride	12125-02-9	10-25	NA	H302, H319, H401
Hydrochloric Acid	7647-01-0	1-5	5 mg/m <sup>3</sup>	H314, H335
Hydroxyacetic Acid	79-14-1	10-25	NA	H302, H312, H318
Monoethanolamine	141-43-5	1-5	3 mg/m <sup>3</sup>	H227, H312, H332, H302, H335, H314

Unlisted percentages are non-hazardous stabilizers, and water. None of the materials in this product are listed in NTP, IARC, or OSHA as carcinogens.

---

## SECTION IV – FIRST AID MEASURES

**Inhalation:** Remove to fresh air  
**Eyes:** Flush with water for fifteen (15) Minutes. Call physician.  
**Skin:** Wash thoroughly with soap and water.  
**Ingestion:** If patient is fully conscious, give large amounts of water. Obtain medical attention immediately.

Most Important Symptoms and effects, both acute and delayed

**Primary Routes of Entry into Body:** Fume inhalation, ingestion, skin, and eyes.

**Symptoms of Overexposure:** Salivation, coughing, choking, chills, may cause weight loss, brittle bones, anemia, and stiff joints.

**Medical Conditions Generally Aggravated by Exposure:** Any weakness of the lungs, kidneys or liver will be aggravated.

**Chemical Listed as Carcinogen or Potential Carcinogen:** None

**OSHA Permissible Exposure Limit (PEL):** NA

**ACGIH Threshold Limit Value (TLV):** NA

---

## SECTION V - FIRE AND EXPLOSION HAZARD DATA

**Flash Point:** NA

**Flammable Limits in Air % By Volume:** NA

**Extinguishing Media:** CO<sub>2</sub>, dry chemical

**Auto Ignition Temperature:** None

**Unusual Fire and Explosion Hazards:** None

**Special Fire Fighting Procedures:** None

---

## SECTION VI - ACCIDENTAL RELEASE MEASURES

**Steps to be taken in case material is spilled:** Absorb spill with sawdust or wood shavings and remove in accordance with EPA regulations.

---

## SECTION VII - HANDLING AND STORAGE

**Storage Requirements:** Plastic containers in a cool dry place when not in use.

**Handling Requirements:** Safe precautionary use to prevent spills and exposure to skin. Keep away from oxidizing agents.

**Other Precautions:** None

---

## SECTION VIII - CONTROL MEASURES

**Respiratory Protection (TYPE):** NIOSH approved respirator.

**Ventilation:** Yes

**Mechanical (General):** Yes

**Local Exhaust:** Yes

**Eye Protection:** Safety glasses

**Protective Gloves:** Recommended, NIOSH approved

**Other Protective Clothing or Equipment:** Rubber gloves and an apron

---

---

## SECTION IX - PHYSICAL AND CHEMICAL CHARACTERISTICS

**Boiling Point:** ~112°C/234°F  
**Specific Gravity (Water = 1):** 1.09  
**Vapor Pressure (mmHg):** Nil  
**Percent Volatile By Volume:** 71%  
**Vapor Density (Air = 1):** NA  
**Evaporation Rate (Butyl acetate = 1):** NA  
**Melting Point:** ~ 10°C/50°F  
**Solubility in Water:** Unlimited  
**Reactivity in Water:** None  
**Appearance and Odor:** Clear red liquid, slight odor

---

## SECTION X - STABILITY AND REACTIVITY

**Stability:** Product is stable  
**Conditions to Avoid:** None  
**Hazardous Polymerization:** None  
**Conditions to Avoid:** Extreme heat  
**Incompatibility:** Oxidizing agents and metals.  
**Hazardous Decomposition Products:** Nitrogen products, CO, CO<sub>2</sub> (above 26°C/500°F)

---

## SECTION XI - TOXICOLOGICAL INFORMATION

### Acute Toxicity Data

- 1) **Oral:** LD-50 (rat): Not available
- 2) **Inhalation:** LC-50 (rat): Not available
- 3) **Dermal:** LD-50 (rabbit): Not available
- 4) **Skin Irritation:** (rabbit): Not available

### Chronic Toxicity Data

- 1) **Repeated Skin Application:** (rat): Not available
  - 2) **Eye Irritation:** (rabbit): Not available
- 

## SECTION XII - ECOLOGICAL INFORMATION

**This material has not been tested for environmental effects.**

---

## SECTION XIII - DISPOSAL CONSIDERATIONS

**Waste Disposal Method:** Dispose of in accordance with EPA regulations

---

## SECTION XIV- TRANSPORTATION

**D.O.T. Proper Shipping Name:** Corrosive Liquid, NOS (Contains Hydroxyacetic Acid, Hydrochloric Acid)  
**Hazard Class:** 8  
**Identification Number:** UN1760  
**Packing Group:** III  
**Type D.O.T Label Required Information:** Corrosive  
**Waste Disposal Method:** Dispose in Accordance with EPA Regulations

---

---

## SECTION XV - REGULATORY INFORMATION

**OSHA Hazardous Chemical According to 29 CFR 1910.1200:** NA

**Carcinogenicity Classification: (Components Present at 0.1% or More)**

**International Agency for Research on Cancer (IARC):** NA

**American Conference of Governmental Industrial Hygienists (ACGIH):** NA

**National Toxicology Program (NTP):** NA

**Occupational Safety and Health Administration (OSHA):** NA

**All Components of this Product are Listed on the U.S. Toxic Substances Control Act Inventory or Otherwise Comply with TSCA Pre-manufacture Notification Requirements.**

**This product is RoHS compliant.**

---

## SECTION XVI - OTHER INFORMATION

The labeling of this product is indicated in Section II. The full text of all abbreviations indicated by codes in the MSDS are as follows:

R34	Causes burns
R36	Irritating to eyes
R37	Irritating to respiratory system
R38	Irritating to skin
S-18	Handle and open container with care
S-26	In case of eye contact, rinse thoroughly and get medical attention
S-27	Take off immediately contaminated clothing
S-36/37/39	Wear suitable protective clothing, gloves, and eye/face protection
S-45	In case of accident or if feel unwell call medical advice immediately
S61	Avoid release to the environment. Refer to special instructions/safety data sheet
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible
S64	If swallowed, rinse mouth with water (only if the person is conscious)
P264	Wash ... thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P280	Wear protective gloves/protective clothing/eye protection/face protection
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P330	Rinse mouth
P337+P313	If eye irritation persists get medical advice/attention
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P309+P311	IF exposed or you feel unwell: Call a POISON CENTER or doctor/physician

H319	Causes serious eye irritation
H401	Toxic to aquatic life
H227	Combustible liquid
H302	Harmful if swallowed
H312	Harmful if contact with skin
H318	Causes serious damage to eyes
H332	Harmful if inhaled
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation

Further information:

Judgments as to the suitability of information herein or the purchaser's purposes are necessarily the purchaser's responsibility. Reasonable care has been taken in the preparation of this material, but there are NO WARRANTIES, NO REPRESENTATIONS AND NO RESPONSIBILITY AS TO THE ACCURACY OR THE SUITABILITY OF THIS INFORMATION FOR ANY PURCHASER'S USE OR FOR ANY CONSEQUENCE TO USE.

---